UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,516	01/18/2001	Shih-Heng Chen	LELI 3414	6394

			EXAMINER
321	7590	06/07/2004	FAN, CHIEH M

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ART UNIT	PAPER NUMBER
2634	

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 January 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 January 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Specification

1.   The disclosure is objected to because of the following informalities:

(a) It appears "k=60" in line 24 of page 7 should be changed to --- $1 \le k \le 60$ ---.

Further, in the same line, the mathematical expression under Σ should be "n=25k+24"

instead of "n=25k+25" (<u>or</u>, the applicant may change "n=25k" under Σ in line 22 to ---

n=25k+1 ---; change "n=25k+1" under Σ in line 23 to --- n=25k+2 --- and change "k=60"

in line 24 to --- $0 \le k \le 59$ ---).

(b) It is not clear what the variable " i " in the mathematical expression $1 \le i \le 25$

in line 12 of page 9 is because the variable " i " has not been mentioned before.   After

comparing with the foreign priority document, it appears that "n=25k+l" under Σ in line

11 of page 9 to --- n=25k+i ---.   However, such mathematical as written will not perform

accumulation at the same sampling points of 60 neighboring symbols as indicated by

the applicants (see line 13).   Instead, it will perform accumulation for all (i.e., 25)

sampling points of the 60th symbol.   The applicant needs to correct the mathematical

expression.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

3.   Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Regarding claims 1-4, according to Fig. 2 and its associated description, the

selection circuit 52 outputs the square of the difference between the mapped phase

difference and a default phase value associated with each sampling point to a

corresponding accumulator 531-533. Therefore, the selection circuit does not output

the result of a phase difference of every sampling point as recited in lines 10-12 of claim

1. Similarly, according to the specification, each of the accumulator 531-533

accumulates the square of the difference between the mapped phase difference and a

default phase value associated with a particular sampling point and outputs the sum of

the squared difference associated to that particular sampling point to the comparison

module 54. Therefore, the claimed limitations "an accumulation module for

accumulating phase differences of the same sampling points" in lines 15-16 and "a

comparison module for comparing the sums of phase differences outputted from the

accumulator" in lines 18-19 do not reflect the teaching of the specification.

Claims 5-8 are rejected because claim 5 also recites a comparison module for

comparing the sums of phase differences" in line 17.

Claims 9-11 are rejected for the same reasons applied to claims 1-4 above.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to
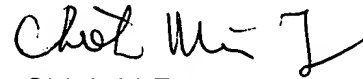
applicant's disclosure.

Hendrickson (U.S. Patent No. 6,212,246), Saunders et al. (U.S. Patent No.

5,892,803), Chuang et al. (U.S. Patent No. 4,941,155), McRae (U.S. Patent No.

4,146,841).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chieh M Fan whose telephone number is (703) 305-

0198. The examiner can normally be reached on Monday-Friday 8:00AM-5:30PM,

Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Stephen Chin can be reached on (703) 305-4714. The fax phone numbers

for the organization where this application or proceeding is assigned are (703) 872-9314

for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

4700.

Chieh M Fan
Primary Examiner
Art Unit 2634

cmf
May 30, 2004